A prospective study of the consulting behaviour of older people with knee pain

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ABSTRACT

Background
Knee pain is common among older adults but only a minority consult their doctor about it.

Aim
To determine predictors of new episodes of consultation in primary care among older people with knee pain.

Design of study
Population-based prospective cohort study linking baseline survey to primary care medical records.

Setting
Three general practices in North Staffordshire, UK.

Method
Subjects were 1797 people aged ≥50 years who responded to a general population survey, reported knee pain in the previous 12 months and had no record of a knee disorder consultation in the 18 months prior to the survey. The main outcome measure was a record of a knee disorder consultation in the 18 months following the survey.

Results
The incidence of a new episode of general practice care was approximately 10% per year. Apart from chronicity (odds ratio [OR] = 1.5; 95% confidence interval [CI] = 1.1 to 2.1), measures of pain severity were not strong influences on future consultation. No social support (measured by having no partner) increased likelihood of future consultation (OR = 1.3; 95% CI = 1.0 to 1.8). Among those with chronic and severe pain, main predictors were previous experiences of health care (use of non-GP services OR = 1.8; previous knee injury OR = 1.7). Current depression reduced likelihood of consulting about the knee problem (OR = 0.6; 95% CI = 0.3 to 0.9).

Conclusions
Knee pain is common in the older population but a minority consult their doctor about it. Severity of pain and disability is not a strong influence on consultation. For those more severely affected, depression may act as a barrier to healthcare use.

Keywords
health care surveys; knee; medical records; primary health care; utilization.

INTRODUCTION

Cross-sectional studies have shown that knee pain in older adults is common and a major cause of disability.[1–4] However, such studies have also shown that only a minority of older people with knee pain and related disability consult their GP in any one year.[4] This raises the question of why some people with chronic pain consult their doctor about it and others do not, and whether this is linked directly to the need for care (for example, by the severity of pain) or to non-specific factors such as previous experience of the healthcare system, the level of psychological distress or social support. Longitudinal data are rare but identifying predictors of healthcare use for a chronic disabling condition, such as knee pain, would highlight potential inequalities of access and unmet need for care which may reduce the pain and disability. The objectives of this study were to determine factors associated with future use of primary care in older people with knee pain but no recent consultation for knee pain.

METHOD

The design was a population survey with linkage to medical records.

The survey

The baseline survey was mailed to all adults aged ≥50 years (*n* = 8995) registered at three general practices in the North Staffordshire and Cheshire

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How this fits in

A minority of the older population who have knee pain consult their doctor about it. Using a prospective study we have found that severity of knee pain was not a strong influence on consultation. Those with less knowledge and experience of healthcare services were less likely to commence GP contact. For those with severe knee pain and disability, psychological distress appears to be a barrier to commencing consultation and this group in particular may be targeted for effective treatment programmes.

GP Research Network, UK. Approximately 98% of the UK population are registered with a general practice[5] and the registers provide a representative sampling frame of a local population. The survey

Box 1. Factors explored for their association with future knee pain consultation.

▶ i) Knee-related

• Previous knee injury ever, which required consultation with GP (from KNEST)[a]

• Pain in one or both knees (laterality; from KNEST)[b]

• Knee pain for 3 months or longer in past year (chronic; from KNEST)[b]

• Reported severe or extreme knee pain or physical function difficulty on any item on WOMAC (from survey)[b]

• Self-report of use of non-GP services for knee pain in 12 months prior to survey (from KNEST)[a]

▶ ii) General health

• Body mass index rating of normal, underweight, overweight or obese (from self-report of height and weight from survey)[c]

• Anxiety — based on being above top tertile on HADs anxiety scale (from survey)[c]

• Depression — based on being above top tertile on HADs depression scale (from survey)[c]

• Widespread pain — pain shaded on manikin in axial skeleton or lower back and at least two areas of two contralateral limbs[13] (from survey)[b]

• Unfavourable personal evaluation — rating health in general to be poor or fair (from survey — SF-36)[b]

• Frequent consulter — defined as being above top quartile[d] in terms of number of contacts to surgery in 18 months before survey[a]

▶ iii) Demographic

• Sex[c]

• Age at time of survey (grouped into 50–64, 65–74 and ≥75 years)[c]

• Practice registered with[a]

• Further education after leaving school (self-report from survey)[c]

• Cohabiting with spouse or partner (self-report from survey)[a]

[a]Enabling factor. [b]Need factor. [c]Predisposing factor. [d]Of all 4779 patients consenting to medical record review.

included the Knee Pain Screening Tool (KNEST),[4] the Short Form-36 (SF-36),[6] the Hospital Anxiety and Depression scale (HADS),[7] the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC),[8] and demographic questions. A further question asked subjects whether they consented to viewing of their medical records.

The KNEST contains a question on pain in or around the knee within the past 12 months. Subjects responding positively continue to answer further questions on the KNEST about laterality and chronicity (pain for ≥3 months in the last 12) of their knee pain and their use of GP and non-GP services for knee pain in the previous 12 months. There is a separate question about past history of knee injury. KNEST has been validated for use in the older population.[9]

The WOMAC has 24 questions covering knee-related pain, stiffness and physical function over the previous 48 hours. Responders were defined as having severe pain or physical function difficulty if they reported 'severe' or 'extreme' on at least one item on the pain scale or 'severe' or 'extreme' difficulty on at least one item on the physical function scale.[10] Subjects who did not report any severe or extreme problem and answered at least four of the five pain items and 14 of the 17 physical function items were rated non-severe.

The baseline survey took place in April 2000 and the results have been reported elsewhere.[4,10] Six thousand seven hundred and ninety-two (adjusted response 77%) subjects responded and 5359 (79%) gave consent for review of their medical records; 4779 (70%) were still registered at the practices at the time of download of the records. Two thousand two hundred and thirty-five (48%) of these 4779 reported knee pain at the time of the baseline survey (compared to 47% of all responders).

The record linkage follow-up study

The network practices undergo a cycle of assessment, feedback and training in the use of computerised morbidity coding.[11] Clinicians use Read Codes to record morbidity information from consultations. Read Codes are a commonly used morbidity coding system in the UK and form a hierarchy of diagnostic and process of care codes.[12] GPs can also add information about a consultation ('free text') alongside the code.

The medical records of the 2235 survey responders with knee pain who consented to record review were filtered to obtain all consultations at the practice, by home visit or by telephone for the 18 months before their response to the survey and for the 18 months (1 July 2000–31 December 2001) after the survey period.

The 3-month period of April–June 2000 was viewed as a 'washout' period to remove any immediate effect of the survey on the decision to consult. The records were then searched to identify all consultations that had an allocated knee-related Read code or a musculoskeletal-related knee disorder mentioned in the text of the consultation. The latter was derived by consensus of two observers with a third acting as arbiter where a decision could not be made.

All participants who had no recorded consultation for a knee disorder in the 18 months prior to the survey formed the study population for this cohort analysis. The outcome variable was a recorded consultation in the primary care records for a knee disorder in the 18-month period following the survey.

Analysis

Knee-related, general health and demographic factors at baseline (Box 1) were assessed for their relationship with future consultation for a knee disorder. The rationale for selection of these factors was the Andersen–Newman model of healthcare utilisation.[14] This model suggests predisposing, enabling and need factors as determinants of healthcare use. Unadjusted odds ratios (ORs) were calculated (with 95% confidence intervals [CIs]) to show the univariate association between each factor and a future knee disorder consultation. Then, the ORs were adjusted for all the other factors within the same section (knee-related, general health or demographic) using multiple logistic regression. This identified significant independent predictors in each section. Finally, all significant predictors (P<0.05) and all predictors with an OR greater than 1.30 or less than 0.77 at step 2 were combined across sections in one final model, again using logistic regression. Analysis was performed using SPSS 12.0 for Windows (SPSS Inc., Chicago).

The above analysis was repeated for the sub-group reporting chronic and severe pain at baseline.

RESULTS

All subjects

There was no difference in sex between those consenting and not consenting to medical record review (P = 0.18). However, those consenting were younger (mean difference = 3.5 years, 95% CI = 2.7 to 4.3) and more likely to be from the more rural practice (P = 0.003) than non-consenters.

The numbers of responders reporting knee pain who consulted their GP for a knee disorder before and after the survey are shown in Figure 1. Of the 2235 who reported knee pain in the survey and had
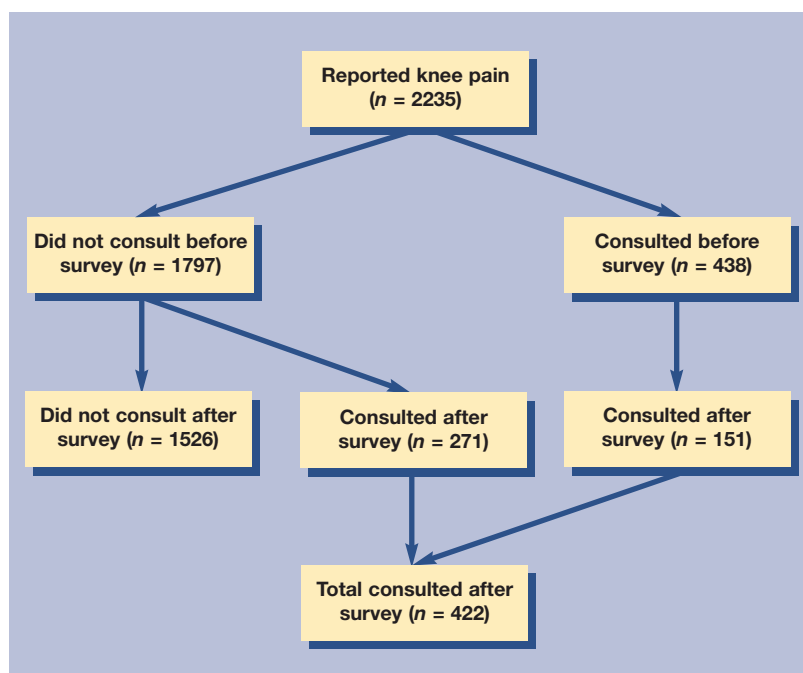

consented to record review, 438 (20%) had a recorded consultation for a knee disorder in the 18 months prior to the survey and 422 (19%) had a post-survey consultation. Of the 438 with a prior consultation, 151 (34%) continued to consult for a knee problem in the 18 months following the survey period. These figures suggest about one-third of patients (151 out of 422) consulting with a knee disorder over an 18 month period would have had a previous recent history of such a consultation.

Subjects with no previous consultation for a knee disorder

One thousand seven hundred and ninety-seven (80%) of the 2235 had had no consultation for a knee disorder in the 18 months prior to the survey. One thousand and twenty (57%) were female and the mean age was 64.2 years (standard deviation [SD] = 9.46, median = 63). Fifty-four per cent were aged 50–64 years and 16% aged ≥75 years.

Among these 1797, 271 (15%) consulted about a knee-related problem in the 18-month follow-up period. This ranged from 22% of those with chronic and severe pain or physical function difficulty at baseline to 10% of those with non-chronic pain and non-severe pain and physical function difficulty. An estimate of the incidence of 'new episode of care' among older knee pain sufferers in the general population is thus 271 per 1797 per 18 months, or approximately 10% per year.

Table 1 shows that bilateral pain was not significantly associated with future consultation in these 1797 people after adjustment for other knee-related factors. Anxiety and depression, extent of

Figure 1. Number of subjects consulting their GP for a knee disorder 18 months before and 18 months after the survey.

Table 1. Associations of future consultation for a knee disorder with i) knee-related, ii) general health and iii) demographic factors.

	Future consultation (n = 271) n (%)	No future consultation (n = 1526) n	OR (95% CI) Unadjusted	OR (95% CI) Adjusted for factors in same section
i) Knee-related				
No previous knee injury	122 (12)	892	1.00	1.00
Previous knee injury	139 (20)	573	1.77 (1.36 to 2.31)	1.56 (1.18 to 2.07)
Unilateral knee pain	113 (13)	739	1.00	1.00
Bilateral knee pain	147 (17)	738	1.30 (1.00 to 1.70)	1.06 (0.80 to 1.41)
Knee pain <3 months	96 (11)	774	1.00	1.00
Knee pain ≥3 months	167 (19)	695	1.94 (1.48 to 2.54)	1.45 (1.05 to 1.99)
Non severe pain or functioning	113 (11)	890	1.00	1.00
Severe pain or functioning[a]	151 (21)	574	2.07 (1.59 to 2.70)	1.58 (1.15 to 2.16)
Not used non-GP services	154 (12)	1101	1.00	1.00
Used non-GP services[b]	117 (22)	425	1.97 (1.51 to 2.57)	1.44 (1.07 to 1.94)
ii) General health				
Normal	81 (14)	507	1.00	1.00
Underweight	10 (21)	38	1.65 (0.79 to 3.44)	1.58 (0.75 to 3.33)
Overweight	102 (14)	642	0.99 (0.73 to 1.36)	0.94 (0.68 to 1.29)
Obese	70 (20)	284	1.54 (1.09 to 2.19)	1.46 (1.02 to 2.10)
Less anxious	169 (14)	1004	1.00	1.00
Most anxious	96 (16)	486	1.17 (0.89 to 1.54)	0.98 (0.71 to 1.35)
Less depressed	175 (14)	1054	1.00	1.00
Most depressed	90 (17)	435	1.25 (0.94 to 1.65)	1.09 (0.77 to 1.55)
Not widespread pain	220 (15)	1253	1.00	1.00
Widespread pain	51 (16)	273	1.06 (0.76 to 1.48)	0.86 (0.60 to 1.23)
Favourable evaluation	149 (14)	946	1.00	1.00
Unfavourable evaluation	121 (18)	559	1.37 (1.06 to 1.79)	1.17 (0.85 to 1.63)
Not frequent consulter	182 (14)	1152	1.00	1.00
Frequent consulter[c]	89 (19)	374	1.51 (1.14 to 1.99)	1.48 (1.09 to 1.99)
iii) Demographic				
Male	92 (12)	685	1.00	1.00
Female	179 (18)	841	1.59 (1.21 to 2.08)	1.50 (1.13 to 2.10)
Age				
50–64 years	123 (13)	852	1.00	1.00
65–74 years	94 (17)	449	1.45 (1.08 to 1.94)	1.40 (1.03 to 1.90)
≥75 years	54 (19)	225	1.66 (1.17 to 2.36)	1.42 (0.96 to 2.10)
Practice A	79 (15)	442	1.00	1.00
Practice B	111 (14)	678	0.92 (0.67 to 1.25)	0.85 (0.61 to 1.18)
Practice C	81 (17)	406	1.12 (0.80 to 1.57)	1.01 (0.71 to 1.43)
Further education	21 (12)	160	1.00	1.00
No further education	235 (15)	1310	1.37 (0.85 to 2.20)	1.32 (0.81 to 2.15)
Cohabiting	167 (13)	1112	1.00	1.00
Not cohabiting	103 (20)	408	1.68 (1.28 to 2.20)	1.37 (1.01 to 1.86)

[a]*On WOMAC.* [b]*In 12 months before response (self-report).* [c]*In 18 months before response (medical records). OR = odds ratio.*

pain in areas other than the knee (widespread pain), having an unfavourable evaluation of one's health at baseline and general practice were also not associated with future consultation.

In the final model (Table 2), history of knee injury (OR = 1.7; 95% CI = 1.3 to 2.3) and chronicity of pain at baseline (OR = 1.5; 95% CI = 1.1 to 2.1) had the strongest associations with a future consultation. In addition, women were more likely to consult than men (OR = 1.4; 95% CI = 1.1 to 2.0). Severe pain or physical function difficulty and use of non-GP services had weaker associations with consultation (both OR = 1.3), as did living

alone (OR = 1.3) and being aged 65–74 years (OR = 1.4 compared to age 50–64 years). The main general health effects (obesity and frequency of overall consultation) lost their association with consultation after inclusion of knee and demographic factors.

Three hundred and ninety-four patients had chronic and severe knee pain but no record of GP consultation either before or after the survey. Comparison of these 394 with the 118 patients who had chronic and severe knee pain and did consult as new episodes of care in the follow-up period showed no differences in levels of severity of pain

or physical functioning difficulty (Table 3). However, 64% of those with a future consultation had already used non-GP services for their knee pain compared to 51% of those without a future consultation (Table 4, OR = 1.8; 95% CI = 1.1 to 3.0). Future consulters were also more likely to have a history of knee injury (OR = 1.7; 95% CI = 1.1 to 2.8) and were less likely to be in the most depressed category (OR = 0.6; 95% CI = 0.3 to 0.9). Although not statistically significant, there were also possible associations of future consultation with obesity, old age, having no further education and not cohabiting with a spouse or partner.

DISCUSSION

Summary of main findings

In this paper we have explored potential determinants of consulting the GP about knee pain among older people in the general population. We have focused on new episodes of consultation, specifically restricting the analysis to people who had not consulted their doctor about knee pain in the previous 18 months. We have based our analysis on a behavioural model to predict health services use developed by Andersen and Newman.[14] In this model the proposal is that there are factors which generally predispose a person to consult about a problem; that there are other factors which act to encourage or prevent them from consulting (enabling factors); and that at the core there is a need for care.

It is important in considering the central concept of 'need' that this is seen as need perceived by the patient in order for it to drive consultation. Although it may be reasonable to consider people who do not consult about a problem for which there is medical care available as having potentially unmet need, we have previously drawn attention to the fact that people with severe levels of physical disability who do not consult their doctor may give positive reasons why they do not seek care.[15] However, here we have investigated whether need, represented by measures of knee pain severity and disability, was an important predictor of consultation. Apart from the chronicity of knee pain, these measures did not strongly predict new consultation episodes.

Critics of the Andersen–Newman model have pointed out the lack of emphasis given to specific beliefs and expectations in determining use of health care.[16] We did not measure specific health beliefs in our study, but we considered frequent consultation and previous consultation about the knee as representing past behaviour and experience and therefore related to beliefs and expectations about what doctors might achieve. It seems that in

Table 2. Associations with future consultation for a knee disorder — final model.

	OR[a] (95% CI)
i) Knee-related	
No previous knee injury	1.00
Previous knee injury	1.72 (1.28 to 2.30)
Knee pain < 3 months	1.00
Knee pain ≥3 months	1.52 (1.11 to 2.10)
Non severe pain or functioning	1.00
Severe pain or functioning[b]	1.29 (0.93 to 1.79)
Not used non-GP services	1.00
Used non-GP services[c]	1.29 (0.95 to 1.77)
ii) General health	
Normal weight	1.00
Underweight	1.62 (0.72 to 3.68)
Overweight	0.95 (0.68 to 1.34)
Obese	1.19 (0.80 to 1.77)
Not frequent consulter	1.00
Frequent consulter[d]	1.13 (0.82 to 1.55)
iii) Demographic	
Male	1.00
Female	1.44 (1.05 to 1.96)
Age	
50–64 years	1.00
65–74 years	1.35 (0.98 to 1.86)
≥75 years	1.23 (0.80 to 1.91)
Further education	1.00
No further education	1.14 (0.69 to 1.87)
Cohabiting spouse/partner	1.00
Not cohabiting	1.34 (0.97 to 1.84)

[a]Adjusted for other presented variables. [b]On WOMAC. [c]In 12 months before response (self-report). [d]In 18 months before response (medical records). OR = odds ratio.

this particular arena (general practice consultation), previous experience of consultation is a consistent predictor of subsequent consultation.[17]

Knowledge of health care and how to access it is defined in the Andersen–Newman model as an enabling factor. Past history of consultation for knee injury indicates knowledge of health care for knee problems and was predictive of new episode consultation for knee pain. Another important enabling factor we identified was the negative one of living alone — lack of social support and relationship was associated with a higher likelihood

Table 3. Comparison between consulters and non-consulters on the extent of pain and physical function difficulty within the chronic and severe group.

	Future consulters (n = 118) Mean (SD)	Non-future consulters (n = 394) Mean (SD)	Mean difference (95% CI)
WOMAC Pain[a]	9.9 (3.55)	10.1 (3.61)	-0.19 (-0.93 to 0.56)
WOMAC Physical function[a]	34.5 (12.58)	36.0 (11.97)	-1.49 (-4.04 to 1.01)

[a]Higher scores indicate worse health on the WOMAC; WOMAC pain scale range 0–20, WOMAC Physical Function scale range 0–68.

Table 4. Associations with future consultation for a knee disorder within the chronic and severe group — final model.

	Future consulters (*n* = 118) *n* (%)	Non-future consulters (*n* = 394) *n* (%)	OR[a] (95% CI)
Previous knee injury	69 (61)	184 (50)	1.72 (1.06 to 2.78)
Used non-GP services[b]	76 (64)	200 (51)	1.84 (1.13 to 2.98)
Obese	38 (33)	101 (27)	1.41 (0.75 to 2.65)[c]
Most depressed	52 (45)	208 (54)	0.56 (0.34 to 0.90)
Age ≥75 years	31 (26)	85 (22)	1.76 (0.92 to 3.37)[d]
Practice C	35 (30)	139 (34)	0.79 (0.42 to 1.46)[e]
No further education	104 (93)	344 (91)	1.38 (0.59 to 3.24)
Not cohabiting with spouse or partner	48 (41)	121 (31)	1.42 (0.86 to 2.34)

[a] *Adjusted for other presented factors.* [b] *In 12 months before response (self-report).*
[c] *Compared to normal weight.* [d] *Compared to age 50–64 years.* [e] *Compared to practice A.*

of consulting. There was evidence that the predisposing factor of female sex (although the association was not strong), was predictive of new episode consultation for knee pain.

The importance of predisposing and enabling factors was more marked when we controlled for the effect of need by selecting out those who reported in the survey that they had severe pain or disability associated with their knee. In our terms they all therefore had potential need for health care. In this group the associations with subsequent consultation were stronger than for the sample as a whole for the predisposing factors of age, body mass index, and for the enabling factors of past consultation for knee injury, prior use of non-GP care and living alone. Andersen and Newman consider psychological problems to be predisposing factors as they are linked to a general propensity to consult health care. However, it may be more appropriate to consider these as enabling factors since, as our finding suggests, those with depression may experience barriers to consultation about their knee problem.

Strengths and limitations of the study
The survey had a high response rate (77%) and a high consent to medical record review (79%). Although the practices were spread across a range of socioeconomic areas, they are all in one region of the UK (North Staffordshire) which may affect generalisability. The methodology used to build to the final model allows examination of the most important knee, general health and demographic factors. It also reduces the number of patients excluded due to missing data on particular variables in the final model. As a further check, the

final model was run with a missing category included for all variables so that all subjects could be included. The conclusions remained unchanged.

Morbidity coding by GPs in electronic medical records has been shown to be of variable quality[18] and our ongoing work suggests that medical records underestimate the true prevalence of consultation for knee pain. This is mainly due to lack of specificity when coding (for example, GPs recording pain in a number of joints as generalised osteoarthritis) or subsequent consultations for chronic knee pain not being recorded after the initial consultation. However, GP recorded consultation for knee pain may better reflect consultations where the knee pain was a significant rather than secondary part of the contact.

Comparison with existing literature
The number of days of activity-limiting pain has been associated with physician visits in a prospective study of healthcare use in older adults with osteoarthritis.[19] It is possible that in the current study chronicity represents long-term care for which consultations exist prior to the 18 months pre-survey consultation period. However, in the overall group, general indicators of recent contact with health care were only weak predictors of subsequent consultation (for example, use of non-GP services).

Living alone was another modest predictor of consultation. This contrasts with de Boer *et al* who concluded that social support was unimportant in explaining physician visits for chronically ill patients.[20] The current study suggests that the combination of lack of social support and a long-term problem of pain and restricted activity, even in people who are not above average consulters, is an important influence on the decision to consult. Healthcare use may be perceived as more relevant or important in the absence of home support.

Severity of knee pain or disability was a weak predictor of future consultation in those with no previous consultation. Other studies have shown perceived health and severity to be important determinants of doctor visits in chronically ill patients[20] and in older people.[16] However, whether previous healthcare use has been taken into account in these studies is not always clear. Prior consultation for the condition under investigation is important, as it has been shown to be the strongest influence on future healthcare use.[17] Consultation status may, therefore, influence the importance of other variables (for example, severity). The current study has investigated healthcare use in those with no recent contact for the knee pain. Severity may be a more important influence on continuing care-

seeking. An alternative explanation of the contrast with studies that stress the importance of need as a determinant of healthcare use among older people[16] relates to how older people rank knee pain in order of importance as needing health care compared with other conditions. In this regard it is interesting that in our study neither the presence of comorbid pain nor poor self-rating of general health, both of which have been shown previously to predict general levels of healthcare seeking, predicted new consultation episodes for knee pain.

In the overall group of older adults without previous consultation, there was no association between future consultation and baseline markers of psychological distress and widespread musculoskeletal pain. These factors are known to be associated with reporting of knee pain and its severity in the community[2,21] and to be general predictors of consultation for a wide variety of physical symptoms and conditions including musculoskeletal and chronic pain.[22,23] However, future consulters with chronic and severe knee pain were less depressed at baseline than those who did not consult during follow-up. Depression may be an important barrier to use of health care for older people with chronic and severe knee pain. Previous contact with a GP for knee injury strongly predicts future consultation in the chronic and severe group of previous non-consulters. This is likely to be a reflection of previous experience or knowledge of the healthcare system.

There is conflicting evidence in the literature about the influence of education on general health-seeking behaviour or consultation for musculoskeletal pain.[24–28] The proportion of our study population who had pursued higher education was low, and there was no clear evidence of a link with consultation.

Implications for future research and clinical practice

The incidence of a new consultation for knee pain in this population is approximately 10% per year. This figure adds to previous estimates on the incidence of radiographic knee osteoarthritis.[3] In the current study, there was a substantial group of patients with chronic and severe knee pain (53% of all those with chronic and severe knee pain, 18% of all those reporting knee pain) who had not consulted their GP prior to the survey about the problem and did not do so during the follow-up period — a total time of more than 3 years. This group was also less likely to have used non-GP services and thus have more unmet needs for health care.

Knee pain is dissimilar to other chronic conditions where consulting propensity is heavily influenced by need factors,[16,20] as predisposing and enabling factors are clearly important. Knee pain severity was not strongly independently linked with seeking out GP care and males, those with less knowledge and experience of healthcare services and those not living alone are less likely to commence GP contact. For those with severe knee pain and disability, psychological distress appears to be a barrier to commencing consultation and this group in particular may benefit from effective treatment programmes.[29] However, given the low number of older adults with disabling knee pain who do not access primary care services and the lack of strong explanatory factors emerging from this study which could be addressed, the research priority is to investigate the specific health beliefs and expectations of care, positive and negative, among sufferers of knee pain in the community to identify whether the need for effective preventive and therapeutic care for chronic disabling knee pain is being properly met or not.

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